

REMARKS/ARGUMENTS**1.) Claim Amendments**

The Applicants have amended claim 41; no new matter has been added. Claims 36-38, 40-54 and 56-70 remain pending.

2.) Claim Objections

The Examiner objected to claim 41 as being dependent upon a cancelled claim, while noting the proper claim from which it should depend. The Applicants have amended claim 41 to change its dependency from claim 39 to claim 36.

3.) Claim Rejections – 35 U.S.C. §103(a)

The Examiner has maintained the rejection of claims 36-70 as being unpatentable over Steinberg (U.S. Patent Publication No. 2004/0136324) in view of Bodlaender (U.S. Patent Publication No. 2005/0120140). The Applicants, again, traverse the rejections.

Claim 36 recites:

36. A method for traffic control in a communication system comprising a plurality of access networks and at least one mobile multi-access terminal, said method comprising the steps of:

receiving, at a network-based traffic control server of the communication system, access-related information from at least a subset of the access networks;

coordinating the access-related information at the traffic control server;

determining a traffic control signal through adaptive traffic control calculations based on the coordinated access-related information, wherein said determining step is performed at the traffic control server and involves a traffic-spread decision by the traffic control server, said method further comprising the step of forwarding the traffic spread decision to a traffic control client of a multi-access terminal; and,

spreading, at said traffic control client of the multi-access terminal, traffic over the access networks in response to the traffic control signal. (emphasis added)

The Applicants' invention is directed to improved methods, and devices/systems incorporating such methods, for traffic handling in multi-access networks. The invention

improves the overall performance by adaptively spreading user traffic over several access networks, and is characterized, in part, by receiving, at a networks-based traffic control server of a communication system, access-related information from at least a subset of the access networks. The access-related information is then coordinated at the traffic control server and a traffic control signal is determined through adaptive traffic control calculations. The step of determining a traffic control signal involves a traffic-spread decision by the traffic control server, and the traffic spread decision is forwarded to a traffic control client of a multi-access terminal. The traffic is then spread, by a traffic control client of the multi-access terminal, over the access networks in response to the traffic control signal. Steinberg and Bodlaender fail to teach that novel combination of functions, either individually or in combination.

Examiner's Reponse to Arguments / Applicant's Counter-Arguments

In responding to Applicants prior arguments, the Examiner now states that:

"[d]uring patent examination, the claims must be given their broadly [sic] reasonable interpretation. See MPEP 2111. The term 'determining a traffic control signal through adaptive traffic control calculations based on the coordinated access-related information' is broadly claimed, therefore, it is broadly interpreted. Thus, the Examiner invites applicant to amend the claims to contain [a] specific definition from [the] specification of how 'adaptive traffic control calculations based on the coordinated access-related information' to distinguish the intended invention with with [sic] the cited prior arts."

It is acknowledged that, during the examination process at the USPTO, an Examiner can give pending claims their "broadest reasonable interpretation" (BRI) pursuant to "decades old case law."¹ The Federal Circuit has recently approved the use of the BRI standard in *Phillips v. AWH Corp.*, an en banc decision addressing claim interpretation.² The specifics of the standard, as explained by the Federal Circuit in *In re Morris*, are as follows:

¹ *In re Morris*, 127 F.3d 1048, 1054, 44 U.S.P.Q.2d (BNA) 1023, 1027 (Fed. Cir. 1997).

² *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, 75 U.S.P.Q.2d (BNA) 1321, 1329 (Fed. Cir. 2005)

[A]s an initial matter, the [US]PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.³

The BRI standard, however, is commonly accompanied by the additional qualifier "consistent with the specification" or similar verbiage.⁴ The Federal Circuit explains this qualifier as a further explanation of a "reasonable" interpretation—one that does not "ignore any interpretative guidance afforded by the applicant's written description."⁵ *Thus, the Examiner's interpretation of the claim limitation must take into account the description of that term in the Applicants' specification.*

Although the Applicants thank the Examiner for inviting the Applicants to amend the limitation in claim 1 related to "determining a traffic control signal through adaptive traffic control calculations based on the coordinated access-related information," it is not believed that is necessary in order to distinguish the claim, as a whole, over the cited prior art. As noted in Applicants' prior arguments, although Steinberg relates to networks that include a plurality of access networks, coupled to a plurality of core networks, its teachings appear limited to selecting an optimal path. The Examiner has not pointed to any teaching therein of spreading traffic over the available access networks, much less "determining a traffic control signal through adaptive traffic control calculations based on the coordinated access-related information." More importantly, the Examiner has not identified in Steinberg any teaching of:

- 1) "determining a traffic control signal [that] involves a traffic-spread decision by the traffic control server," and
- 2.) "[forwarding] the traffic spread decision . . . to a traffic control client of a multi-access terminal."

Upon receiving the traffic spread decision at the multi-access terminal, a traffic control client of the multi-access terminal spreads traffic [from the terminal] over the access

³ *In re Morris*, 127 F.3d at 1054, 44 U.S.P.Q.2d (BNA) at 1027.

⁴ *id.*

⁵ *id.*

networks in response to the traffic control signal. For that limitation, the Examiner looks to the teachings of Bodlaender.

The Examiner has acknowledged that Steinberg "fails to specifically disclose spreading, at a traffic control client of the multi-access terminal, traffic over the access networks in response to the traffic control signal," which the Examiner asserts is taught by Bodlaender. The "traffic control client of the multi-access terminal," however, is but a portion of the element of claim 36 in which the spreading function of Applicants' invention is performed. The function of spreading the traffic is performed "in response to the traffic control signal," which is determined by a network-based traffic control server. In contrast, Bodlaender teaches a client device that includes a splitter/merger device 130, which splits outgoing traffic 140 over the available connections (i.e., access networks). In deciding which access networks over which to send traffic, the "client device 100 comprises means 148 . . . for monitoring any bandwidth available over said separate [access networks] as well as means 150 . . . for responding to any change in the available bandwidth." (Paragraph [0022]) Thus, Bodlaender does not teach a traffic control signal which is determined in, and sent from, a network-based traffic control server to a client device. Rather, Bodlaender teaches making a decision as to how to split traffic at the client device.

The advantages of Applicants' invention, and the distinction between the claimed invention and the prior art, can be understood by an analogy to driving a car. Conventionally, a car driver makes a series of decisions as to which road to take at each intersection in order to reach a desired destination; i.e., all decisions as to which route to take are made by the driver. In recent years, GPS vehicle navigation systems have become available which can assist a driver in selecting the most appropriate route to take; such GPS systems, however, are based on a static database of road information stored in the GPS device and the device will always select the same route from a current location to the desired destination. More advanced GPS vehicle navigation systems may receive a signal that indicates traffic information for each road segment that can be used to reach the desired destination; either the driver, or the local GPS device, can use that traffic information to select an alternate route to the destination if the normal route is experiencing traffic congestion. In all of the foregoing

examples, **however**, the decision as to which route to take is performed by the driver or the GPS vehicle navigation system; *i.e.*, the intelligence behind the decision is **localized**. That is analogous to the teachings of Bodlaender, wherein a decision as to how to split traffic is made **at the client device**. In contrast, the Applicants' invention is characterized by a decision process **in a network-based traffic control server** and is **based on the coordinated access-related information** from at least a subset of the **access networks**. That approach to spreading traffic over the access networks has the advantage of being based on coordinated access-related information, which is based on information from a plurality of the access networks, rather than independently by each terminal. A further advantage is that the determination of the appropriate traffic control signal takes place **in the network**, rather than **the client device**, thereby utilizing the typically more powerful computing resources of network equipment rather than the usually limited processing power of client devices. An additional advantage is that, by placing the determination process in the network, the requirements of a plurality of terminals can be taken into consideration in determining an appropriate traffic control signal for each device. The teachings of Bodlaender, however, only deal with a decision process within one mobile terminal, without any insight into the load on individual access nodes or the demands of other mobile terminals. Thus, Bodlaender fails to overcome the deficiency in the teachings of Steinberg and, therefore, the Examiner has not established a ***prima facie*** case that claim 36 is obvious in view of those references.

Whereas independent claims 53, 59 and 68 recite limitations analogous to those of claim 36, they are also not obvious over Steinberg in view of Bodlaender. Furthermore, whereas claims 37-52, 54-58, 60-67 and 69-70 are dependent from claims 36, 53, 59 and 68, respectively, and include the limitations thereof, they are also not obvious in view of those references.

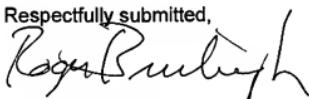
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CONCLUSION

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 36-38, 40-54 and 56-70.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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